

claim 10
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TITLE: SEQUENTIAL DECODER
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INVENTOR-INFORMATION:
NAME
TAJIMA, MASATO

ASSIGNEE-INFORMATION:
NAME COUNTRY
TOSHIBA CORP N/A

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ABSTRACT:

PURPOSE: To reduce the number of processing steps, and to improve the processing speed by constituting the titled decoder of a syndrome forming device, a buffer memory inputting and preserving a syndrome series and preserving and outputting an error series, a sequential decoding arithmetic circuit, and a correcting circuit correcting a data corresponding to an information symbol in a received data.

CONSTITUTION: The syndrome forming device 101 generates a corresponding syndrome series $S_{\langle SB \rangle k \langle /SB \rangle}$ based on a received series and

stores it in a
buffer memory 102. Moreover, a sequential decoding
arithmetic circuit 103 has
a state trellis corresponding to the syndrome forming
device in its inside to
transit the state of trellis based on the syndrome series
 $S \langle SB \rangle k \langle /SB \rangle$ fetched
from a buffer memory 102. Then the decoding arithmetic
operation is executed
and the error series obtained is written in the buffer
memory 102. An error
series corresponding to the information symbol in the
decoded series written in
the buffer memory 102 is used to allow a correction circuit
104 to correct a
data corresponding to an information symbol among the
received data, thereby
generating a final decoded data.

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